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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,520	08/13/2001	Ryota Kato	108072.01	6869

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EXAMINER

PHAM, HAI CHI

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

4A

Office Action Summary	Application No. 09/927,520	Applicant(s) KATO, RYOTA	
	Examiner Hai C. Pham	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-14 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-14 is/are allowed.
- 6) ☒ Claim(s) 5-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 5-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshida (U.S. 6,476,955).

Yoshida discloses a multi-beam scanning optical system comprising a plurality of laser light sources (semiconductor lasers 1a, 1b), a deflector (polygon mirror 5) that deflects the laser beam emitted from each of the plurality of laser light sources, a first converging unit (scanning lens 6) that converges, at least in the main scanning direction, the laser beam deflected by the deflector, a photosensitive member (photosensitive drum 7) across which the laser beam converged by the first converging

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unit is scanned, a detector (synchronism detector or BD sensor 10) that receives and detects the laser beam converged by the first converging unit to provide scan start timing of the laser beam, a second converging unit (optical means 14, which includes a cylindrical lens 4 having refractive power in the sub-scanning direction to converge the beams onto the surface of the polygon mirror) that converges the laser beam emitted from each of the plurality of laser light sources onto the deflector, a slit member (BD slit 9) disposed on a position optically equal to a scanned position of the photosensitive member (col. 13, lines 43-47), and a third converging unit (BD lens 11) between the slit member and the detector that converges, at least in the sub-scanning direction, the laser beam converged by the first converging unit, on the detector, wherein a lateral magnification in the sub-scanning direction in an optical path from the slit to the detector is less than one, wherein the lateral magnification is represented by $L2/L1$, where $L1$ is a distance from the slit member to the third converging unit and $L2$ is a distance from the third converging unit to the detector (to adjust the converging state of the BD beam on the surface of the BD sensor, the BD slit plate 9 is moved along the optical path of the BD beam away from the BD sensor such that the ratio of the distance $L1$ from the BD slit to the BD lens is greater than the distance $L2$ from the BD lens to the BD sensor, e.g., the longitudinal magnification in the main scanning direction or the lateral magnification in the sub-scanning direction as represented by the ratio $L2/L1$ becomes less than one) (col. 25, lines 8-22) (Figs. 29A-29C).

Yoshida further teaches a mirror (BD mirror 12) being disposed between the first converging unit (scanning lens 6) and the photosensitive member (7) so as to reflect each laser beam to the BD slit (9).

Allowable Subject Matter

3. Claims 8-14 are allowed.
4. The following is an examiner's statement of reasons for allowance: claim 8 is patentable over the prior art patents and printed publications because of the specific configuration of the converging unit that converges the plurality of laser beams at least in the sub-scanning direction onto the surface of the beam detector to provide scan start timing of the laser beams such that the width of the converged plural laser beams in the sub-scanning direction on the detector is less than the width of the plural laser beams in the sub-scanning direction on the photosensitive member. The combined limitations as currently claimed are not taught by the prior art of record considered alone or in combination.

Claims 9-14 are allowable because they are directly or indirectly dependent from claim 8 above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

5. Applicant's arguments with respect to claims 5-7 have been considered but are moot in view of the new grounds of rejection as presented in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on (571) 272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HAI PHAM
PRIMARY EXAMINER
November 17, 2005